IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Inventorship ....Butler et al.
Applicant...Microsoft Corp.
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Examiner .... Tran
Attorney's Docket No. MS1-119us
Title: "Providing Enhanced Content With Broadcast Video"

APPEAL BRIEF

To: Commissioner for Patents
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Pursuant to 37 C.F.R. §41.37, Applicant hereby submits an appeal brief for application 08/902,005, filed July 29, 1997, within the requisite time from the date of filing the Notice of Appeal. Accordingly, Applicant appeals to the Board of Patent Appeals and Interferences seeking review of the Examiner's rejections.

Appeal Brief Items **Page**

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(1)   Real Party in Interest

The real party in interest is Microsoft Corporation, the assignee of all right, title and interest in and to the subject invention.

(2)   Related Appeals and Interferences

Appellant is not aware of any other appeals, interferences, or judicial proceedings which will directly affect, be directly affected by, or otherwise have a bearing on the Board's decision to this pending appeal.

(3)   Status of Claims

Claims 1-43 and 45-50 stand rejected and are pending in the Application. Claim 44 was previously canceled. Claims 1-43 and 45-50 are appealed. Some of these claims were previously amended. Claims 1-43 and 45-50 are set forth in the Appendix of Appealed Claims on page 36.

(4)   Status of Amendments

A Final Office Action was issued on April 7, 2005.

A Response to the Final Office Action (RCE) was filed June 20, 2005. Three claims were amended – claims 1, 7, and 40; one claim was canceled – claim 44.

An Office Action was issued dated August 26, 2005.

A Notice of Appeal was filed on December 16, 2005.

<u>(5)</u>   <u>**Summary of Claimed Subject Matter**</u>

A concise explanation of each of the independent claims is included in this Summary section, including specific reference characters. These specific reference characters are examples of particular elements of the drawings for certain embodiments of the claimed subject matter and the claims are not limited to solely the elements corresponding to these reference characters.

With regard to claim 1, a method comprises transmitting a video stream (page 15, lines 11-15; Fig. 4, 220); formatting supplemental data files in a graphical markup language (page 15, lines 16-21; Fig. 4, 222), each supplemental data file having instructions for rendering a hyperlink overlay on the video stream, wherein formatting comprises setting transparent areas of each hyperlink overlay to a key color; and transmitting the supplemental data files along with the video stream (page 16, lines 3-6, Fig. 4, 226).

With regard to claim 16, a method comprises transmitting a video stream (page 15, lines 11-15; Fig. 4, 220); formatting HTML files having instructions for rendering hyperlink pages on a video stream (page 15, lines 16-21; Fig. 4, 222), the hyperlink pages having transparent areas that are set to a key color; associating the HTML files with the video stream (page 15, line 22-page 16, line 2; Fig. 4, 224); displaying the hyperlink pages on a display (page 16, lines 13-20; Fig. 5, 234); displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color (page 16, lines 9-12; Fig. 5, 232).

With regard to claim 24, a method comprises receiving a video stream; associating one or more hyperlink pages with the video stream (page 15, line 22-

page 16, line 2; Fig. 4, 224), the hyperlink pages having transparent areas that are set to a key color; displaying the hyperlink pages on a display (page 16, lines 13-20; Fig. 5, 234); displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color (page 16, lines 9-12; Fig. 5, 232).

With regard to claim 32, a computer-readable storage medium is recited to have computer-executable instructions for performing steps comprising receiving a video stream; associating one or more hyperlink pages with the video stream (page 15, line 22-page 16, line 2; Fig. 4, 224), the hyperlink pages having transparent areas that are set to a key color; displaying the hyperlink pages on a display (page 16, lines 13-20; Fig. 5, 234); and displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color (page 16, lines 9-12; Fig. 5, 232).

With regard to claim 40, a video broadcast system comprises a broadcast source (page 4, lines 2-10, Fig. 1, 12) that broadcasts a video stream and provides accompanying supplemental data files, each supplemental data file having instructions for rendering a hyperlink overlay on the video stream; a receiver (page 4, lines 2-10, Fig. 1, 14) configured to receive the video stream and accompanying supplemental data files and to display the hyperlink overlays in conjunction with the video stream, wherein the receiver comprises color keying hardware (page 7, line 22 – page 8, line 2) that displays video only in display areas that are set to a key color, the hyperlink overlays having transparent areas that are set to a key color.

With regard to claim 45, a receiver for receiving and displaying video streams comprises display hardware for displaying video streams and bit-mapped

images to a user (page 7, line 17-24); the display hardware including color keying hardware (page 7, line 22 – page 8, line 2) that displays video in display areas that are set to a key color; access means (page 8, lines 9-14) for reading supplemental data files that have instructions for rendering bit-mapped hyperlink overlays in conjunction with the video stream at indicated times; a data processor (page 10, lines 1-4; Fig. 2, 52) that reads the supplemental data files and in response displays the hyperlink overlays at the indicated times, wherein the hyperlink overlays have transparent areas that are set to a key color, the hyperlink overlays thus appearing to overlay the video streams.

(6)   Grounds of Rejection to be Reviewed on Appeal

Claims 15 and 32 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-43 and 45-50 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,929,849 to Kikinis in view of WO 96/10888 to Adams.

(7)   Argument
A.   The rejection of claims 15 and 32 under 35 U.S.C. §101 is improper and must be withdrawn.

Claims 15 and 32 stand rejected under 35 U.S.C §101 as being directed to non-statutory subject matter. In making out the rejection, the Office argues that these claims "constitute a storage medium having computer instructions per se with no pre- or post-processing implemented within a device thereupon. The claimed subject matter fails to produce a useful, concrete or tangible result

because the storage medium with executable instruction for performing/executing a process is an abstract idea in which the storage medium could be, for example, 'a human memory' that stores/memorizes the computer executable instructions for performing/executing such process."

The Office's rejection is improper for a number of different reasons among which include: (1) claims 15 and 32 recite subject matter which falls squarely within that subject matter defined by 35 U.S.C. § 101 as constituting patentable subject matter; and (2) a computer-readable storage medium having computer-executable instructions is not an abstract idea.

Dealing first with item (1), the Office's rejection appears to be directed along the line of a rejection for descriptive material. MPEP § 2106 provides some good direction on this point. Particularly, with regard to nonstatutory subject matter, § 2106 instructs as follows.

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. "Nonfunctional

descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

A mere inspection of Applicant's claims indicates that the claims recite functional descriptive material – that is, the subject matter of the claims pertains to "computer programs which impart functionality when employed as a computer component".

MPEP § 2106 further instructs that both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. *When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.*

MPEP § 2106 further instructs, with regard to functional descriptive material as follows.

A claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Computer programs are often recited as part of a claim. Office personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when

the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and Office personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material. When a computer program is claimed in a process where the computer is executing the computer program's instructions, Office personnel should treat the claim as a process claim. ***When a computer program is recited in conjunction with a physical structure, such as a computer memory, Office personnel should treat the claim as a product claim.***

Here, the subject claims recite a computer-readable storage medium having computer-executable instructions for performing steps recited in a method claim. Hence, these claims recite subject matter that defines, as noted in MPEP § 2106, structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized. As such, these claims recite patentable subject matter.

Dealing now with item (2) above, a computer-readable storage medium is simply not an abstract idea as the Office contends. Rather, a computer-readable storage medium is a tangible item. Applicant is honestly befuddled at the Office's characterization and treatment of this subject matter as an abstract idea. More specifically, the Office argues that the "storage medium could be, for example, 'a human memory' that stores/memorizes the computer-executable instructions for

performing such process." Applicant is quite frankly at a loss to understand how a specifically-recited "computer-readable storage medium" could be a "human memory". This fanciful interpretation of Applicant's recited subject matter is directly contrary to the specifically recited words that appear on the page.

For at least these reasons, the Office's rejections under 35 U.S.C. §101 must be withdrawn.

B.   **The rejection under 35 U.S.C. §103(a) over the combination of Kikinis and Adams does not establish a *prima facie* case of obviousness.**

The §103 Standard

In making out a §103 rejection, the Federal Circuit has stated that when one or more reference or source of prior art is required in establishing obviousness, "it is necessary to ascertain whether the prior art *teachings* would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitutions or other modification." *In re Fine,* 5 USPQ 2d, 1596, 1598 (Fed. Cir. 1988). That is, to make out a prima facie case of obviousness, the references must be examined to ascertain whether the combined *teachings* render the claimed subject matter obvious. *In re Wood*, 202 USPQ 171, 174 (C.C.P.A. 1979).

Moreover, there is a requirement that there must be some reason, suggestion, or motivation *from the prior art*, as a whole, for the person of ordinary skill to have combined or modified the references. *See, In re Geiger,* 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987). It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. One cannot use hindsight

reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fritch,* 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992).

A factor cutting against a finding of motivation to combine or modify the prior art is when the prior art *teaches away* from the claimed combination. A reference is said to teach away when a person or ordinary skill, upon reading the reference, would be led in a direction divergent from the path that the applicant took. *In re Gurley,* 31 USPQ 2d 1130, 1131 (Fed. Cir 1994).

The need for specificity pervades this authority. See, e.g., *In re Kotzab,* 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed").

The Office's Attempted Combination of Kikinis and Adams

Preliminary, in the discussion that follows, Applicant will first address the Office's "Response to Arguments" section in the last Office Action. Following this, Applicant will describe the references to Kikinis and Adams, and then provide additional reasons why the Office has not established a *prima facie* case of obviousness.

In attempting to combine Kikinis and Adams, the Office argues in its "Response to Arguments" section (See Office Action dated 8/26/2005, page 2), that such combination would render Applicant's claimed subject matter obvious and reasons as follows: "[t]herefore, it would have been obvious to one or ordinary

skill in the art at the time the invention was made to modify Kikinis with Adams's object oriented instruction set so to enable a content programmer to [be] able to create a video stream display screen from a programming studio and to flexibly control area around the video stream display including the definition and placement of objects/text/images over the video stream display, as suggested by Adams' summary…."

The Office further argues that "the reason one of ordinary skill would be motivated to modify Kikinis with Adams is simply because the combination is obvious. One of ordinary skill in the art would recognize that modify Kikinis Dynamic URL control routines with Adams's object oriented programming command set would be advantageous, since frameworks are based on object technology in ease of programming, extensibility, reuse of code, and integration of software from different vendors and (in some object-oriented programming models) across programming languages, in this instance Adams' 'object oriented command set' of setting specific screen background color of an object to be transparent in order to overlay the object on the video stream display."

The Office's response to Applicant's arguments does not rise to the level of supporting a *prima facie* case of obviousness for at least the following reasons.

First, as a motivation to combine these references, the Office argues that the motivation would be "to [be] able to create a video stream display screen from a programming studio and to flexibly control area around the video stream display including the definition and placement of objects/text/images over the video stream display." This argument appears to simply state that the combination would be obvious because it would result in a more flexible system. Clearly, this

is not the standard for making out a *prima facie* case of obviousness. Specifically, whether a particular combination would result in a flexible or more efficient system is not the standard that is to be used to make out a §103 rejection.

Second, the Office argues that "the reason one of ordinary skill would be motivated to modify Kikinis with Adams is simply because the combination is obvious." To support this contention, the Office argues, as noted above, "[o]ne of ordinary skill in the art would recognize that modify Kikinis Dynamic URL control routines with Adams's object oriented programming command set would be advantageous...." Certainly, the advantageousness of such a combination is not the § 103 standard that the courts have promulgated.

Accordingly, based on this reasoning alone, there are significant problems with the Office's rationale and motivation for combining these references.

The Kikinis Reference

Kikinis is directed to methods and systems for receiving a data stream having successive image frame data in frame regions and internet URL data and association data in data regions *between* frame regions. Kikinis then displays, on a display monitor, successive frames derived from the image frame data. Because the association data associates image entities in successive frames with one or more URLs, a viewer may select an associated image entity in the display, causing the system to access the internet, connect with the URL, download a web page, and display the web page in the display. The viewer may further interact with this display and entities may be enhanced in this display to indicate association with a hidden URL.

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Kikinis discloses a receiving and display apparatus that allows a viewer watching a video or TV display to view and interact with a downloaded webpage. This includes using a webpage (downloaded as a result of activating a URL) as a portal to download additional information. Specifically, individual images or entities in TV presentations (like persons or emblems) are linked with dynamic URLs so that a viewer can may select such images and invoke the associated URL. See, e.g., Column 5, lines 17-26.

Kikinis provides an instructive example in column 6 starting at around line 50. As instructed by Kikinis, one or more entity images in frames of a transmission are identified as to position and extent in the frame, and are associated with a WWW URL. As a simplified example, in an advertisement for a certain brand of automobile, an icon or emblem may be presented in each frame at a particular position in the frame. The emblem could be, for example, the specific emblem used for that brand of automobile, like the well-known Ford, Chevrolet, or BMW emblem. The emblem could be provided in the advertisement in any of the conventional manners known in the art. FIG. 2A is a simplified depiction of a frame 55 displayed with a BMW emblem 57 in the frame at a particular position with a specific areal extent.

In this example the BMW advertisement is a pre-recorded advertisement that may be transmitted any number of times and displayed, just as advertisements are typically displayed between portions of TV programs. In the recording of the advertisement, or in an editing procedure for existing pre-recorded advertisements, data is recorded to be transmitted between frames identifying the position and extent of the BMW emblem in the adjacent frame, and associating the emblem

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with a specific WWW URL, of the general form http://www.bmw.com. The URL is a locator on the WWW for a Home Page provided on a WEB server maintained by BMW, and being a repository for detailed information in addition to that provided in the transmitted advertisement.

As the TV frames are displayed, which includes BMW emblem 57, a viewer may activate the cursor (cursor may activate automatically when the viewer manipulates one or another of buttons 67). Following special control routines according to an embodiment of the invention, data between frames is stripped and used in execution of the control routines to identify the position and areal extent of emblem 57 in the adjacent frames, and the associated URL.

If the viewer is interested in additional information, he/she may manipulate the cursor to touch the region of emblem 57 and then actuate a selection signal, such as pressing one of the buttons 69 on the remote. On receipt of the selection signal with the cursor touching the BMW emblem, the system executes browser routines, accessing the WWW, and dials up the WEB server (see server 54 and modem 35 or 39, FIG. 1) described above maintained by BMW on the WWW. The URL in the data region between frames of the TV transmission, associated with the BMW emblem is the WWW address for dial-up.

Once a viewer activates the system of the invention, and connection is made to the BMW WEB server, action may proceed in one of several ways. In one embodiment, the TV display is suspended, and the initial WEB page downloaded from the BMW server is displayed instead. The TV display can continue, and the WEB page downloaded is displayed in a window 71 over the TV display as shown in FIG. 2C. In this manner, window 71 can be enlarged or downsized, moved on

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the screen, and closed whenever the viewer wishes. Also, interactive areas in the window relating to additional information or related WEB pages can be activated with cursor 70 and selector buttons 69, just as though the WEB page in the superimposed window is a page displayed on a computer monitor via a conventional WEB browser. This capability includes ability to scroll via scroll bars and the like as commonly presented with WEB pages on the WWW. In some embodiments, due to areal limitations for display, rather than sizing a WEB page to a window for display, the WEB page is maintained at a certain minimum size, and if the window is too small to show all of the WEB page, scanning and panning capability is provided as known in the art for accessing the entire page.

The Adams Reference

Adams is directed to methods and system for an interactive video system that processes a video stream and associated data stream corresponding to the video data stream. A video is displayed on a display device and interactive command functions are performed which are specified by the associated data stream. These interactive command functions can include commands that specify placement of a video display window, commands that specify parameters of graphical objects that are associated with the video image and commands that specify pixel data or graphics description for the graphical object and commands for placement of selection windows and that specify interactive functions for the selection windows.

Adams describes its particular approach starting at around page 19, line 10+. Specifically, video packets, audio packets, and associated packets can be

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associated with a packetized digital data stream. Each packet can comprise a packet-header and packet payload, with the packet-header of each containing a time stamp that can synchronize these distinct packets. The payload for each may include video data for video packets, audio data for audio packets, and interactive video command and control functions for a computer system receiving the data stream.

Client runtime managers may distribute video and audio data from an incoming packetized digital data stream to the appropriate driver routines to display the video and audio on the receiving system. The incoming associated data packets are synchronized to the video and audio packets via the time stamp in the packet's packet-header portions. The associated data packets include commands for: placement of graphic objects on the display device, placement of graphical windows on the display device, selection regions on the display surface and commands for execution upon selection of one of these regions by a mouse pointing device, commands for presentation placement and sizing of the video window on the display surface. Thus, the runtime manager on the displaying system can define the video display window according to the specifications provided by the associated data packets.

Thus, Adams discusses a means in which video, audio, and additional command functions can be sent (by a packetized digital data stream), received, and displayed in a synchronized fashion. These command functions determine how the video/audio stream and any associated objects are ultimately displayed. For example, command functions may specify characteristics such as: video screen positioning, the corresponding background color of the screen, the order in which

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items or text is layered on the screen, and the color palette to be used by the display driver on the system displaying the data.

The Claims

Claim 1

Claim 1 recites a method comprising the following steps [emphasis added]:

- transmitting a video stream;
- formatting supplemental data files in a graphical markup language, each supplemental data file having instructions for rendering a hyperlink overlay on the video stream, *wherein formatting comprises setting transparent areas of each hyperlink overlay to a key color*;
- transmitting the supplemental data files along with the video stream.

In making out the rejection of this claim, the Office argues that its subject matter is rendered obvious in view of Kikinis and Adams. Specifically, the Office argues that Kikinis discloses all of the features of this claim except for setting transparent areas of each hyperlink overlay to a key color. For this, the Office relies on Adams citing to page 21, line 13-28 and page 20-22, line 10.

More specifically, the Office argues that Kikinis discloses formatting supplemental data files in a graphical markup language, each supplemental data file having instructions for rendering a hyperlink overlay on the video stream, citing to column 8, lines 5-18 and column 10, lines 18-25 for support. The Office argues that it is "notoriously well known…to be files with CGI extension or Scripts with coded syntax in different format…." Further, the Office argues that

Kikinis discloses each supplemental data file having instructions for rendering a hyperlink overlay on the video stream, citing to Fig. 2C and column 8, lines 5-37. The Office argues that this claim element reads on "executing the 'Dynamic URL' by a browser to render over the video...." See, Office Action, page 6, first paragraph.

Applicant respectfully disagrees with the Office. This excerpt of Kikinis is provided just below:

Once a viewer activates the system of the invention, and connection is made to the BMW WEB server, action may proceed in one of several ways. In one embodiment, the TV display is suspended, and the initial WEB page downloaded from the BMW server is displayed instead. Preferably, the TV display continues, and the WEB page downloaded is displayed in a window 71 over the TV display as shown in FIG. 2C. In this manner, window 71 can be enlarged or downsized, moved on the screen, and closed whenever the viewer wishes. Also, interactive areas in the window relating to additional information or related WEB pages can be activated with cursor 70 and selector buttons 69, just as though the WEB page in the superimposed window is a page displayed on a computer monitor via a conventional WEB browser. This capability includes ability to scroll via scroll bars and the like as commonly presented with WEB pages on the WWW. In some embodiments, due to areal limitations for display, rather than sizing a WEB page to a window for display, the WEB page is maintained at a certain minimum size, and if the window is too small to show all of the WEB page, scanning and panning capability is provided as known in the art for accessing the entire page.

The BMW WEB page shown in window 71 of FIG. 2C is an information portal for the TV viewer to access an abundance of information via the WWW, but not available in the original TV advertisement. Such information might include, for example, colors available (with examples)., body styles (with pictures), performance data, detailed pricing structure, sales and lease terms available, locations near the viewer where a demonstration drive may be accomplished and company representatives may be interviewed, and much more. Even demonstrative videos may be downloaded and played for the viewer, if the system is equipped to display such information. Further, and importantly, a pre-filled order form may be accessed. The process of buying a dealer's product can be made painless and user/buyer friendly.

While this passage describes the notion of downloading a web page and displaying the web page in a window on a TV display, there is nothing in this excerpt or anywhere else that describes a supplemental data file having instructions for rendering a hyperlink overlay on the video stream that was *transmitted in the transmitting step*. That is, while there may be rendering instructions for rendering the associated web page in a generic fashion, it does not appear from a reading of Kikinis that its web pages are knowledgeable of the video stream on which they are to be rendered. Accordingly, for at least this reason, the Office has failed to establish a *prima facie* case of obviousness.

The Office further argues that Kikinis discloses transmitting the supplemental data files along with the video stream in Fig. 3A element 83. First, if Kikinis does not disclose supplemental data files as recited in this claim, it is virtually impossible for it to disclose transmitting such files *along with* the video stream.

The figure cited by the Office simply depicts a flow that diagram and element 83 depicts a step in which a data stream is received bearing entity data and one or more dynamic URLs in a data region separate from the image frame data. For more context, this excerpt is reproduced below along with surrounding text.

> FIG. 3A is a flow diagram depicting a procedure followed by an apparatus in conjunction with a data stream containing a dynamic URL in conjunction with an embodiment of the present invention.

> At step 83 a data stream is received bearing entity data and one or more dynamic URLs in a data region separate from image frame data. The one or more URLs are linked to the image entities by a tag. The URLs can be sent before (ahead of) the images and stored in a cache. Thus, when many images are

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displayed at the same time, more bandwidth can be alloted to the entities, as opposed to the URL data.

At step 85 interframe data is stripped and provided to computer elements in the receiving platform (see FIG. 1) to a CPU executing dynamic URL control routines according to an embodiment of the present invention at step 87. A normal TV picture is presented from the frame data at step 89 by the conventional TV elements of the receiving interactive system.

At step 91 data from the inter-frame regions is processed to enhance the identified entity, and the enhancement is accomplished at step 93. At step 95 a viewer provides pointer input to activate and manipulate a cursor on the TV screen. The input is processed at step 97, and at step 99 the viewer moves the cursor to the area of the enhanced entity image. At step 101 the viewer activates a selection input, which is processed at step 103, and at step 105 the enhanced entity is selected. This selection initiates WEB access by computer elements in the receiving and display system.

At step 107 a Network Interface Module (NIM) is initialized and dial-up is accomplished, providing Internet access for the receiving system. The NIM may be an analog or a digital modem, a cable modem, a satellite modem, one of computer network cards, such as a 10bT, 100bT, Token Ring, or any of a number of other ways to access the Internet.

At step 109 the dynamic URL associated with the enhanced entity is presented on the Internet, and the associated WEB page is downloaded. The WEB page is displayed at step 111, either as the display or as a window on the display. Step 113 represents further action the viewer may take with the WEB page, selecting related information, jumping to related sites on the WWW, and interacting with the WEB page in general in any or all of the ways known to those with skill in the art. At step 115 the viewer deactivates the WEB display, which may be done by selecting a familiar close box, or by any of several other viewer input techniques.

It appears that the dynamic URL referenced above is nothing more than an URL that is used to access and download a web page. The Office argues that element 83 transmits the supplemental data files along with the video stream. Hence, from a reading of the above passage, the Office must be equating the supplemental data files to either one of two things—the entity data or the dynamic URLs.

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The entity data to which this passage refers is associated with the displayable entity that is displayed for the user – e.g., the BMW emblem. There is nowhere in Kikinis that appears to suggest that this data has instructions such as those recited by the claimed supplemental data files. If this is true, then the only thing that the Office can be considering as a supplemental data file is the Dynamic URL. It appears, however, that the Dynamic URL is simply an URL that is "presented to the Internet" to download a web page. It does not appear that the Dynamic URL has instructions for rendering a hyperlink overlay on the video stream that is transmitted. Hence, for this additional reason, the Office has failed to establish a *prima facie* case of obviousness.

The Office continues in rejecting this claim and argues that Kikinis does not disclose the specifically recited act of formatting, i.e. setting transparent areas of each hyperlink overlay to a key color. Applicant agrees.

The Office then goes on to rely on Adams for this feature and argues that Adams discloses such a feature on page 21, lines 13-28 and page 20-22, lines 10. More specifically, the Office argues that "Adams clearly discloses instructions for rendering/overlaid objects/images by setting specific screen background color of the object to be transparent (set to a key color) on the video stream display in a synchronized manner." As motivation for the combination of Kikinis and Adams, the Office argues that such would be motivated "to enable a content programmer to [be] able to create a video stream display screen from a programming studio and to flexibly control area around the video display …." See Office Action, page 6, last paragraph.

The Office's attempted combination fails to establish a *prima facie* case of obviousness for a number of different reasons: (1) Adams does not disclose or suggest the use of key colors; and (2) the Office's motivation for making the combination is too general and lacking in the type of particularity that is required to make out a *prima facie* case of obviousness.

With regard to the first reason that the Office has failed to establish a *prima facie* case of obviousness, consider the following. There are a number of different areas in Applicant's specification where the notion of a key color is described. After a reading and appreciation of these areas, and an understanding of what Adams describes, it should be self-evident that what Adams describes is markedly different from Applicant's recited "key color". As an example, consider the following excerpts of Applicant's specification:

> The invention allows video broadcasters to prepare ancillary data content as HTML files. The HTML files are prepared as overlays, with backgrounds of a pre-determined color key for viewing with video equipment having color keying features. At a receiver, the HTML overlays are rendered using typical Internet browser technology in the same display area as broadcast video, using color keying. This makes the overlay background appear transparent: the video appears only in the background areas of the HTML overlays. *Page 3, lines 6-12.*

> One difference from a conventional Web page is that a hyperlink overlay in accordance with the invention has a background that is set to a predetermined key color. Background areas, set to the key color, are intended to be transparent. *Page 7, lines 12-14.*

> The display hardware includes bit-mapped graphics capabilities for displaying static bit-mapped images in conjunction with conventional application programs, in addition to video display capabilities. Furthermore, PCs 14 include video color keying hardware that can be configured to display video only in display areas that are set to a key color. *Page 7, line 22 through Page 8, line 2.*

Video subsystem 66 also incorporates color keying features that aid in integrating video with static bit-mapped graphics. With color keying, an application program or the operating system configures the video subsystem to display a video stream in a rectangular area or "viewport" of monitor 68 in conjunction with whatever bit-mapped monitor image has been put in place by executing software. In effect, the video subsystem overwrites the normal bit-mapped display image with the video stream. However, the video subsystem is configured to overwrite only those areas of the bit-mapped display image that are set to a predetermined color or chroma key value. Thus, a bit-mapped image can be created having "transparent" areas or regions that are set to the color key value. The video stream will be displayed only in these transparent regions, so that the bit-mapped image will appear to overlay the video stream. *Page 10, line 22 through page 11, line 8.*

Consider now Adams and the excerpts cited by the Office. First, the excerpt on page 21, lines 13-28 simply describes one implementation of an object oriented command set. Specifically described are different commands such as "Define Object", "Instantiate Object" and "Define coordinate scaling". One of the attributes that an object can have according to this definition is a color attribute – that is, certain objects can have a color. In addition, it appears that the "Instantiate Object" command can render an object on a transparent background or a color background (see, e.g. "Background" attribute of "Instantiate Object" command).

Nowhere does this excerpt describe, disclose or even remotely suggest a key color. A reading of the more general excerpt cited by the Office (i.e. pages 20-22) simply provides some contextual environment for the object oriented command set. And, while the notion of background colors and patterns is discussed, nowhere is the notion of a key color even remotely hinted at. The reason for this is self-evident—Adams does not contemplate a key color as that term is used in Applicant's claim and defined in Applicant's specification.

Accordingly, for at least this addition reason, the Office has failed to establish a *prima facie* case of obviousness.

With regard to the second reason that the Office has failed to establish a *prima facie* case of obviousness (i.e. to create a more flexible system), Applicant has indicated above why this motivation is lacking and, for the sake of brevity, does not repeat the argument. In addition, it appears that the Office's approach in making out this rejection may be based on a key word search that rests upon hindsight reconstruction. As will be appreciated, hindsight reconstruction based on a general motivation has been specifically proscribed by the Federal Circuit.

Accordingly, for all of the reasons set forth above, the Office has failed to establish a *prima facie* case of obviousness and this claim is allowable.

Claims 2-15 are allowable as depending from an allowable base claim – claim 1. In addition, these claims are allowable for the reasons set forth below.

Claim 2

In making out the rejection of this claim, the Office argues that Kikinis discloses formatting supplemental data files in HTML, citing to column 9, lines 60-65+. In this excerpt, Kikinis describes the notion of presenting the dynamic URL on the Internet and downloading and displaying an associated web page. Again, while the web page would certainly contain HTML, there is nothing in Kikinis that indicates that the HTML has instructions for rendering a hyperlink overlay (as recited in this claim) on the video stream that is recited to be transmitted.

Accordingly, for at least this additional reason, this claim is allowable.

Claim 3

Claim 3 recites transmitting timing specifications with the supplemental data files indicating times for displaying the hyperlink overlays. In making out the rejection of this claim, the Office notes the Kikinis does not disclose timing specifications. The Office then relies on Adams for this feature citing to page 19, lines 16-22, page 23, lines 13-30. Specifically, the Office argues that "Adams discloses a timing specification (time stamp) is transmitted with associated data packets (supplemental data files) includes a time stamp, i.e. time synchronization with the video stream when the graphical object is overlaid on the video stream at specific location of the screen…" As a motivation to make this combination, the Office argues that such would be motivated "so additional display information could be presented to user and in sync along with the video and audio information."

The Office has not made out a *prima facie* case of obviousness for at least the following reasons. First, insofar as neither reference discloses or suggests supplemental data files as recited in this claim, it is virtually impossible for either reference to disclose or suggest transmitting timing specifications associated with such non-existent supplemental data files. Second, as Kikinis does not disclose supplemental data files as recited in this claim, it does not appear that it would suffer from any synchronization problems that could be cured from the solution offered by Adams. Moreover, even if Kikinis did disclose such supplemental data files (which it does not), it would appear that Kikinis has already taken into account any synchronization issues in its specific solution (i.e. providing the URL

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frames adjacent to the image with which it is associated). Accordingly, the Office's motivation is misplaced at best and rests on a bit of misguided hindsight reconstruction.

Accordingly, for at least these additional reasons, this claim is allowable.

Claim 5

Claim 5 recites receiving the video stream and accompanying supplemental data files and displaying the hyperlink overlays in conjunction with the video stream. Because neither reference discloses or suggests supplemental data files as recited in claim 1, it is virtually impossible for the references to disclose or suggest receiving any such video stream and ***accompanying*** data files and displaying the hyperlink overlays in conjunction with the video stream.

Accordingly, for at least this additional reason, this claim is allowable.

Claim 7

Claim 7 depends from claim 5 and recites that the displaying step comprises displaying the video stream only in the areas of the hyperlink overlays that are set to a key color. In making out the rejection of this claim, the Office argues that Adams discloses the same on page 23, line 10 through page 24, line 10.

Applicant disagrees. This excerpt cited by the Office simply describes the notion that packets are received and command functions associated with the packets are executed. In addition, packets include commands for the placement of graphical windows and that selection regions for a display surface on a display device can be specified. Nowhere does this excerpt disclose or suggest displaying

the video stream only in the areas of the hyperlink overlays that are set to a key color. The reason for this is self-evident after a reading of Adams—Adams contemplates no such thing.

Accordingly, for this addition reason, this claim is allowable.

Claims 8-10

Claim 8 is allowable at least for the reasons set forth above with regard to claim 7.

Claim 9 depends from claim 5 and recites that the displaying step comprises displaying the hyperlink overlay and using color keying video hardware that displays video only in display areas that are set to a key color. The Office argues that Kikinis does not disclose this feature and relies therefore on Adams. Specifically, the Office argues that Adams discloses color keying video hardware on page 14, lines 5-15, page 18, lines 4-17, page 23, line 10 through page 24, line 10.

With regard to page 14, lines 5-15, Adams simply describes a computer system that extracts associated data for an incoming video signal during vertical blanking intervals of the incoming video data frames. Nowhere does this excerpt even remotely hint at color keying video hardware.

With regard to page 18, lines 4-17, Adams simply describes a data selector that generates an interrupt to a processor over an interrupt line each time a data packet is placed in either a video queue, audio queue or associated data queue. Nowhere does this excerpt even remotely hint at color keying video hardware.

With regard to page 23, line 10 through page 24, line 10, Adams simply describes notions set forth above. Nowhere does this excerpt even remotely hint at color keying video hardware.

Quite frankly, Applicant is very perplexed as to why the Office continues to believe that these excerpts of Adams disclose features that are not even mentioned. Applicant has read these excerpts many many times and is honestly at a loss to find the material that the Office contends is contained therein, as well as to understand how even the most fanciful of interpretations of these excerpts could find them to contain subject matter that the Office argues is there.

For at least these additional reasons, claim 9 is allowable.

Claim 10 is allowable at least for the reasons set forth above with regard to claim 7.

Claims 11-15

These claims are allowable as depending from an allowable base and intervening claim (claim 5) and for their own recited features which, in combination with claims 1 and 5 are neither disclosed nor suggested by the references of record.

Claim 16

Claim 16 recites a method comprising the following steps [emphasis added]:

- transmitting a video stream;
- formatting HTML files having instructions for rendering hyperlink pages on a video stream, *the hyperlink pages having transparent areas that are set to a key color*;
- associating the HTML files with the video stream;
- displaying the hyperlink pages on a display;
- *displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color*.

In making out the rejection of this claim, the Office simply states that this claim "is analyzed with respect to claims 1, 5 and 7". Applicant wishes for the record to reflect that claims 1, 5 and 7 contain language that is different from the specific language recited in this claim. In view of this difference in language, Applicant would like the record to reflect that to the extent that the general notions embodied by claims 1, 5 and 7 are allowable for the reasons set forth above, the general notions that are shared with claim 16 are allowable for the same reasons.

Claims 17-23

In making out the rejections of these claims, the Office simply cites back to other previously-rejected claims. In view of the differences in language between the subject matter of these claims and the claims that were previously analyzed by the Office, Applicant would like the record to reflect that the general notions embodied in these claims are allowable for the same reasons that the general notions embodied in the previously-analyzed claims are allowable.

Claim 24

Claim 24 recites a method comprising the following steps [emphasis added]:

- receiving a video stream;
- associating one or more hyperlink pages with the video stream, *the hyperlink pages having transparent areas that are set to a key color*;
- displaying the hyperlink pages on a display;
- *displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color*.

In making out the rejection of this claim, the Office argues that Kikinis discloses all of the features of this claim except for the material appearing in the bold italics. For this, the Office relies on Adams citing to the same sections which were discussed above. For all of the reasons set forth above with regard to Adams failing to disclose or even remotely suggest this subject matter, this claim is allowable. In addition, for all of the reasons set forth above with regard to the Office's motivation for its combination failing to rise to the level of a *prima facie* case of obviousness, this claim is allowable.

Claims 25-31

In making out the rejections of these claims, the Office cites back to previously-analyzed claims.

These claims are allowable as depending from an allowable base claim and for their own features which, in combination with those claims from which they

depend, are neither disclosed nor suggested in the references of record. In addition, the general notions embodied by these claims are allowable for the same reasons that the general notions embodied by their associated previously-analyzed claims are allowable.

<u>Claim 32</u>

Claim 32 recites a computer-readable storage medium having computer-executable instructions for performing steps comprising [emphasis added]:

- receiving a video stream;
- associating one or more hyperlink pages with the video stream, ***the hyperlink pages having transparent areas that are set to a key color***;
- displaying the hyperlink pages on a display;
- ***displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color***.

In making out the rejection of this claim, the Office argues that this claim is rejected with "respect to claim 24." In making out the rejection of claim 24, the Office argues that Kikinis discloses all of the features of this claim except for the material appearing in the bold italics. For this, the Office relies on Adams citing to the same sections which were discussed above. For all of the reasons set forth above with regard to Adams failing to disclose or even remotely suggest this subject matter, this claim is allowable. In addition, for all of the reasons set forth above with regard to the Office's motivation for its combination failing to rise to the level of a *prima facie* case of obviousness, this claim is allowable.

Claims 33-39

These claims are rejected by the Office based on analysis that was performed on other claims. These claims are allowable as depending from an allowable base claim and for their own features which, in combination with those claims from which they depend, are neither disclosed nor suggested in the references of record. In addition, the general notions embodied by these claims are allowable for the same reasons that the general notions embodied by their associated previously-analyzed claims are allowable.

Claim 40

Claim 40 recites a video broadcast system comprising [emphasis added]:

- a broadcast source that broadcasts a video stream and provides accompanying supplemental data files, each supplemental data file having instructions for rendering a hyperlink overlay on the video stream;
- a receiver configured to receive the video stream and accompanying supplemental data files and to display the hyperlink overlays in conjunction with the video stream, ***wherein the receiver comprises color keying hardware that displays video only in display areas that are set to a key color, the hyperlink overlays having transparent areas that are set to a key color.***

In making out the rejection of this claim, the Office argues that Kikinis discloses all of the claim's subject matter except for that which appears in the bold italics. For this subject matter, the Office relies on Adams citing to the same sections that were mentioned above and using the same motivation.

For all of the reasons set forth above with respect to (1) the references not disclosing or suggesting supplemental data files; (2) the references not disclosing

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or suggesting key colors; (3) the references not disclosing or suggesting color keying hardware; and (4) the failure of the Office's motivation to fail to rise to the level of a *prima facie* cased of obviousness, this claim is allowable.

Claims 41-43

These claims are rejected by the Office based on analysis that was performed on other claims. These claims are allowable as depending from an allowable base claim and for their own features which, in combination with those claims from which they depend, are neither disclosed nor suggested in the references of record. In addition, the general notions embodied by these claims are allowable for the same reasons that the general notions embodied by their associated previously-analyzed claims are allowable.

Claim 45

Claim 45 recites a receiver for receiving and displaying video streams, comprising [emphasis added]:

- display hardware for displaying video streams and bit-mapped images to a user;
- the display hardware including *color keying hardware that displays video in display areas that are set to a key color*;
- *access means for reading supplemental data files that have instructions for rendering bit-mapped hyperlink overlays in conjunction with the video stream at indicated times*;
- *a data processor that reads the supplemental data files and in response displays the hyperlink overlays at the indicated times, wherein the hyperlink overlays have transparent areas that are set to a key color, the hyperlink overlays thus appearing to overlay the video streams.*

In making out the rejection of this claim, the Office argues that Kikinis discloses all of the claim's subject matter except for that which appears in the bold italics. For this subject matter, the Office relies on Adams citing to some of the same sections that were mentioned above.

For all of the reasons set forth above with respect to (1) the references not disclosing or suggesting supplemental data files; (2) the references not disclosing or suggesting key colors; and (3) the references not disclosing or suggesting color keying hardware, this claim is allowable.

Claims 46-50

These claims are allowable as depending on an allowable base claim and for their own recited features which are neither shown nor suggested by the references of record.

Conclusion

The Office's basis and supporting rationale for the § 103(a) rejections is not supported by the teaching of the cited references. Applicant respectfully requests that the rejections be overturned and that the pending claims be allowed to issue.

Respectfully Submitted,

Dated: 2/10/06   By: _____

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(8)   Appendix of Appealed Claims

1.   (Previously Presented) A method comprising the following steps:

transmitting a video stream;

formatting supplemental data files in a graphical markup language, each supplemental data file having instructions for rendering a hyperlink overlay on the video stream, wherein formatting comprises setting transparent areas of each hyperlink overlay to a key color;

transmitting the supplemental data files along with the video stream.

2.   (Original) A method as recited in claim 1 wherein the formatting step comprises formatting the supplemental data files in HTML.

3.   (Original) A method as recited in claim 1 and further comprising a step of transmitting timing specifications with the supplemental data files indicating times for displaying the hyperlink overlays.

4.   (Original) A computer-readable storage medium having computer-executable instructions for performing steps as recited in claim 1.

5.   (Original) A method as recited in claim 1 and further comprising the following additional steps:

receiving the video stream and accompanying supplemental data files;

displaying the hyperlink overlays in conjunction with the video stream.

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6.　(Original) A method as recited in claim 5, wherein the displaying step comprises launching an HTML-compatible browser to display the hyperlink overlays.

7.　(Previously Presented) A method as recited in claim 5, wherein:

the displaying step comprises displaying the video stream only in the areas of the hyperlink overlays that are set to a key color.

8.　(Original) A method as recited in claim 5, wherein:

the formatting step comprises setting transparent areas of each hyperlink overlay to a key color;

the displaying step comprises launching an HTML-compatible browser to display the hyperlink overlays;

the displaying step further comprises displaying the video stream only in the areas of the hyperlink overlays that are set to a key color.

9.　(Original) A method as recited in claim 5, wherein:

the formatting step comprises setting transparent areas of the hyperlink overlay to a key color;

the displaying step comprises displaying the hyperlink overlay and using color keying video hardware that displays video only in display areas that are set to a key color.

10. (Original) A method as recited in claim 5, wherein:

the formatting step comprises setting transparent areas of the hyperlink overlay to a key color;

the displaying step comprises launching an HTML-compatible browser to display the hyperlink overlays;

the displaying step further comprises using color keying video hardware that displays video only in display areas that are set to a key color.

11. (Original) A method as recited in claim 5, wherein the formatting step comprises including hyperlinks in the hyperlink overlays, the method further comprising an additional step of displaying content targeted by such hyperlinks in response to selecting such hyperlinks.

12. (Original) A method as recited in claim 5, wherein the formatting step comprises including hyperlinks in the hyperlink overlays, the method further comprising an additional step of replacing any currently displayed hyperlink overlay with content targeted by such hyperlinks in response to selecting such hyperlinks.

13. (Original) A method as recited in claim 5, wherein the formatting step comprises including hyperlinks in the hyperlink overlays, the method further comprising an additional step of opening new viewing windows for displaying content targeted by such hyperlinks.

14. (Original) A method as recited in claim 5, wherein the formatting step comprises including hyperlinks in the hyperlink overlays, the method further comprising an additional step of launching application programs as required to render content targeted by such hyperlinks.

15. (Original) A computer-readable storage medium having computer-executable instructions for performing steps as recited in claim 5.

16. (Previously Presented) A method comprising the following steps:
transmitting a video stream;
formatting HTML files having instructions for rendering hyperlink pages on a video stream, the hyperlink pages having transparent areas that are set to a key color;
associating the HTML files with the video stream;
displaying the hyperlink pages on a display;
displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color.

17. (Original) A method as recited in claim 16, and further comprising the following additional steps:
transmitting timing specifications with the HTML files indicating times for displaying the hyperlink pages;
the step of displaying the hyperlink pages being performed at the times indicated by the timing specifications.

18. (Original) A method as recited in claim 16, wherein the step of displaying the hyperlink pages comprises launching an HTML-compatible browser.

19. (Original) A method as recited in claim 16, wherein the step of displaying the video stream comprises using color keying video hardware that displays video only in display areas that are set to a key color.

20. (Original) A method as recited in claim 16, further comprising an additional step of displaying content targeted by hyperlinks in response to selecting such hyperlinks.

21. (Original) A method as recited in claim 16, further comprising an additional step of replacing any currently displayed hyperlink pages with content targeted by hyperlinks in response to selecting such hyperlinks.

22. (Original) A method as recited in claim 16, the method further comprising an additional step of opening new viewing windows for displaying content targeted by hyperlinks in displayed hyperlink pages.

23. (Original) A method as recited in claim 16, further comprising an additional step of launching application programs as required to render content targeted by hyperlinks in displayed hyperlink pages.

24.   (Original) A method comprising the following steps:

receiving a video stream;

associating one or more hyperlink pages with the video stream, the hyperlink pages having transparent areas that are set to a key color;

displaying the hyperlink pages on a display;

displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color.

25.   (Original) A method as recited in claim 24, wherein the step of displaying the hyperlink pages comprises launching an HTML-compatible browser.

26.   (Original) A method as recited in claim 24, wherein the step of displaying the video stream comprises using color keying video hardware that is configured to display video only in display areas that are set to a key color.

27.   (Original) A method as recited in claim 24, wherein:

the step of displaying the hyperlink pages comprises launching an HTML-compatible browser;

the step of displaying the video stream comprises using color keying video hardware that is configured to display video only in display areas that are set to a key color.

28. (Original) A method as recited in claim 24, further comprising an additional step of displaying content targeted by hyperlinks in response to selecting such hyperlinks.

29. (Original) A method as recited in claim 24, further comprising an additional step of replacing any currently displayed hyperlink pages with content targeted by hyperlinks in response to selecting such hyperlinks.

30. (Original) A method as recited in claim 24, the method further comprising an additional step of opening new viewing windows for displaying content targeted by hyperlinks in displayed hyperlink pages.

31. (Original) A method as recited in claim 24, further comprising an additional step of launching application programs as required to render content targeted by hyperlinks in displayed hyperlink pages.

32. (Original) A computer-readable storage medium having computer-executable instructions for performing steps comprising:

receiving a video stream;

associating one or more hyperlink pages with the video stream, the hyperlink pages having transparent areas that are set to a key color;

displaying the hyperlink pages on a display;

displaying the video stream on the display in areas of displayed hyperlink pages that are set to a key color.

33. (Original) A computer-readable storage medium as recited in claim 32, wherein the step of displaying the hyperlink pages comprises launching an HTML-compatible browser.

34. (Original) A computer-readable storage medium as recited in claim 32, wherein the step of displaying the video stream comprises using color keying video hardware that is configured to display video only in display areas that are set to a key color.

35. (Original) A computer-readable storage medium as recited in claim 32, wherein:

the step of displaying the hyperlink pages comprises launching an HTML-compatible browser;

the step of displaying the video stream comprises using color keying video hardware that is configured to display video only in display areas that are set to a key color.

36. (Original) A computer-readable storage medium as recited in claim 32 having further computer-executable instructions for performing the additional step of displaying content targeted by hyperlinks in response to selecting such hyperlinks.

37.   (Original) A computer-readable storage medium as recited in claim 32, having further computer-executable instructions for performing the additional step of replacing any currently displayed hyperlink pages with content targeted by hyperlinks in response to selecting such hyperlinks.

38.   (Original) A computer-readable storage medium as recited in claim 32, having further computer-executable instructions for performing the additional step of opening new viewing windows for displaying content targeted by hyperlinks in displayed hyperlink pages.

39.   (Original) A computer-readable storage medium as recited in claim 32, having further computer-executable instructions for performing the additional step of launching application programs as required to render content targeted by hyperlinks in displayed hyperlink pages.

40.   (Previously Presented) A video broadcast system comprising:
a broadcast source that broadcasts a video stream and provides accompanying supplemental data files, each supplemental data file having instructions for rendering a hyperlink overlay on the video stream;
a receiver configured to receive the video stream and accompanying supplemental data files and to display the hyperlink overlays in conjunction with the video stream, wherein the receiver comprises color keying hardware that displays video only in display areas that are set to a key color, the hyperlink overlays having transparent areas that are set to a key color.

41.   (Original) A video broadcast system as recited in claim 40, wherein the supplemental data files are formatted in HTML.

42.   (Original) A video broadcast system as recited in claim 40, wherein the broadcast source provides timing specifications with the supplemental data files indicating times for displaying the hyperlink overlays relative to the video stream.

43.   (Original) A video broadcast system as recited in claim 40, further comprising an HTML-compatible browser that the receiver launches to display the hyperlink overlays.

44.   (Cancelled).

45.   (Original) A receiver for receiving and displaying video streams, comprising:

display hardware for displaying video streams and bit-mapped images to a user;

the display hardware including color keying hardware that displays video in display areas that are set to a key color;

access means for reading supplemental data files that have instructions for rendering bit-mapped hyperlink overlays in conjunction with the video stream at indicated times;

a data processor that reads the supplemental data files and in response displays the hyperlink overlays at the indicated times, wherein the hyperlink overlays have transparent areas that are set to a key color, the hyperlink overlays thus appearing to overlay the video streams.

46.   (Original) A receiver as recited in claim 45, further comprising an HTML-compatible browser that the data processor executes to display the hyperlink overlays.

47.   (Original) A receiver as recited in claim 45, wherein the data processor is programmed to display content targeted by hyperlinks in the hyperlink overlays in response to selecting such hyperlinks.

48.   (Original) A receiver as recited in claim 45, wherein the data processor is programmed to replace any currently displayed hyperlink overlay with content targeted by a hyperlink in said currently displayed hyperlink overlay in response to selecting such hyperlink.

49.   (Original) A receiver as recited in claim 45, wherein the data processor is programmed to open a new viewing window for displaying content targeted by a particular hyperlink in response to selecting the particular hyperlink.

50.   (Original) A receiver as recited in claim 45, wherein the data processor is programmed to launch application programs as required to render content targeted by hyperlinks in hyperlink overlays.

(9)   **Evidence appendix. None**

(10) Related proceedings appendix. None